# DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

#### LAKE TROPHIC DATA

# MORPHOMETRIC:

Lake: WASON POND	Lake Area (ha):	4.33
Town: CHESTER	Maximum depth (m):	2.7
County: Rockingham	Mean depth (m):	1.0
River Basin: Coastal	Volume (m³):	43500
Latitude: 42°58'58" N	Relative depth:	1.2
Longitude: 71°13'05" W	Shore configuration:	1.90
Elevation (ft):	Areal water load (m/yr):	
Shore length (m): 1400	Flushing rate $(yr^{-1})$ :	70.30
Watershed area (ha): 671.4	P retention coeff.:	0.29
<pre>% watershed ponded: 0.0</pre>	Lake type: arti	ficial

BIOLOGICAL:	29 January 1998	10 September 1997
DOM. PHYTOPLANKTON (% TOTAL) #1	NO SAMPLE COLLECTED	DINOBRYON 45%
#2		RHIZOSOLENIA 40%
#3		
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		19.39
DOM. ZOOPLANKTON (% TOTAL) #1	NO SAMPLE COLLECTED	ASPLANCHNA 72%
#2		KERATELLA 10%
#3		NAUPLIUS LARVA 9%
ROTIFERS/LITER		453
MICROCRUSTACEA/LITER		49
ZOOPLANKTON ABUNDANCE (#/L)		502
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		1.9 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	13.6	7.0
BACTERIA (E. coli, #/100 ml) #1		15
#2		7
#3		

# SUMMER THERMAL STRATIFICATION:

### not stratified

Depth of thermocline (m): None Hypolimnion volume  $(m^3)$ : None Anoxic volume  $(m^3)$ : None

CHEMICAL:			WASON POR CHESTER	<b>1</b> D	
	29 Janua	ary 1998	10 5	September	1997
DEPTH (m)	1.5		1.0		
pH (units)	4.8		6.8		
A.N.C. (Alkalinity)	1.2		6.0		
NITRATE NITROGEN	0.09		< 0.05		
TOTAL KJELDAHL NITROGEN	0.20		0.60		
TOTAL PHOSPHORUS	0.005		0.017		
CONDUCTIVITY (µmhos/cm)	100.6		84.4		
APPARENT COLOR (cpu)	17		26		
MAGNESIUM			0.90		
CALCIUM			3.0		
SODIUM			12.1		
POTASSIUM			1.36		
CHLORIDE	20		18		
SULFATE	9		3		
TN : TP	58		35		
CALCITE SATURATION INDEX			3.2		

All results in mg/L unless indicated otherwise

# TROPHIC CLASSIFICATION: 1997

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	3	4	10	Eutro.

# COMMENTS:

- This is a manmade pond, an impoundment on Wason Brook. It is privately owned by a campground, with no access to the public. There were camper trailer sites around much of the pond and a campground beach.
- 2. This is a shallow, eutrophic pond with abundant plankton and common rooted plant growth.

  Asplanchna was a strong dominant in the summer zooplankton. It is a predatory rotifer and is common but rarely dominant.

#### FIELD DATA SHEET

LAKE: WASON POND

DATE: 09/10/97

TOWN: CHESTER

WEATHER: OVERCAST & COOL

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	20.0	7.5	82 %
1.0	20.0	7.4	81 %
1.5	20.0	7.0	77 %
		A. A	
			47

SECCHI DISK (m): 1.9 VOB COMMENTS:

BOTTOM DEPTH (m): 1.9

TIME: 1045

\*Dissolved oxygen values are in mg/L

# AQUATIC PLANT SURVEY

LAKE: WASON POND TOWN: CHESTER DATE: 09/10/97 PLANT NAME Key ABUNDANCE GENERIC COMMON Y Nuphar Yellow water lily Scattered  $\mathbf{T}$ Typha Cattail Sparse W Potamogeton Pondweed Sparse Sagittaria Arrowhead Sparse U Utricularia Bladderwort Sparse E Eriocaulon septangulare Pipewort Sparse J Juncus Rush Sparse В Brasenia schreberi Water shield Sparse Х Bottom growth Common Р Pontederia cordata Pickerelweed Sparse

#### OVERALL ABUNDANCE: Common

#### GENERAL OBSERVATIONS:

1. Beavers were present. They had done some chewing on the flash boards on the concrete dam.